

**Attorney Docket No.: FUJA 20.933 (100794-00551)**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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Title: Content Delivery System

Examiner: Jalatee Worjloh

Group Art Unit: 3621

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF FOR APPELLANTS**

Board of Patent Appeals and Interferences  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

A Notice of Appeal was filed on September 5, 2007, along with a two-month extension of time and Pre-Appeal Brief Conference Request. Appellant appeals to the Board of Patent Appeals and Interferences from the Final Office Action dated April 6, 2007, finally rejecting claims 1-10.

All requisite fees, including those for this Brief set forth in 37 C.F.R. § 41.20(b)(2), may be charged to Deposit Account No. 50-1290.

**I. Real party in interest**

The real party in interest is Fujitsu Ltd., a Japanese corporation with offices at 1-1 Kamikidanaka 4-chome, Nakahara-ku, Kawasaki-shi Kanagawa 211-8588 Japan.

**II. Related appeals and interferences**

Upon information and belief, there are no other appeals or interferences, which will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

**III. Status of claims**

Claims 1-10 are pending, stand rejected, and are herein appealed.

**IV. Status of amendments**

An Advisory Action issued on July 26, 2007 indicating that the amendment to the claims filed on July 3, 2007 would be entered for purposes of appeal. The claims as amended are appended hereto, and the sole amendment referenced by the Advisory Action is addition of the word "user" in the third line of claim 5, which was submitted in response to a rejection under 35 U.S.C. § 112, second paragraph, in the final office action.

**V. Summary of claimed subject matter**

One aspect of the present invention is directed to a content delivery system (Fig. 2) for delivering content over a network (4). The system includes a subscriber serving apparatus (2) serving at least one user terminal (1). A delivery server (5) for delivering content, and a billing

server (6) for billing for the delivery of the content. The subscriber serving apparatus (2) includes monitoring means (22) for monitoring a data stream being delivered from the delivery server (5) to the user terminal (1). The billing server (6) includes judging means (63) for judging the amount of billing to be charged to a user based on delivery quality of the monitored data stream at the subscriber serving apparatus (2), and bills the user based on the result of the judgment made by the judging means (Fig. 2, 63).

Another aspect of the present invention is directed to a content delivery system (Fig. 5) for delivering content over a network (4). The system includes a subscriber serving apparatus (2) serving at least one user terminal (1), a delivery server (5) for delivering content, and a billing server (6) for billing for the delivery of the content. The subscriber serving apparatus (2) includes monitoring means (22) for monitoring a data stream being delivered from the delivery server (5) to the user terminal (1), and a judging means (27) for judging the amount of billing to be charged to a user based on delivery quality of the monitored data stream at the subscriber serving apparatus (2), and the billing server (6) bills the user (1) based on the result of the judgment made by the judging means (27).

## **VI. Grounds of rejection to be reviewed on appeal**

1. Whether or not claims 1-4, 6-8 and 10 are unpatentable under 35 U.S.C. § 103(a) over Japanese Patent No. 200027030 to Kei in view of U.S. Patent No. 6,199,054 to Khan.

2. Whether or not claims 5 and 9 are unpatentable under 35 U.S.C. § 103(a) over Kei in view of Khan and in further view of U.S. Published Patent Application No. 2002/0128936 to Sako.

## **VII. Argument**

A primary distinguishing feature of the instant claims over the relied upon portions of the cited references is that the “the billing is set based on the **quality of the delivered monitored data stream.**” The avoidance of determination of the billing until after the delivery of the data is exactly the problem in the prior art that the present invention, as claimed, was trying to overcome. (See Application , page 1, lines 22-29). In the cited references the billing rates are based on other factors, all determined prior to sending of the data, and not based on the quality of the data stream delivered to the user.

With respect to independent claims 1 and 2 it is respectfully submitted that in Khan it is the user (ISP) that must set the billing rate and not the monitoring device as recited in the instant claims. Further, it is uncertain that Khan is even applicable to the instant application as it fails to provide any teaching of a Quality of Service or billing based thereon. As best understood, Khan teaches merely a simple system for billing email but makes no specific mention as to how billing rates are determined other than by the ISP, and largely based on the security of the transmission. All that is said is that the ISP may set the billing rates to be fair. Thus as best understood, Khan stands for little more than the concept of billing rates based on security.

In contrast, the instant invention as recited in claims 1 and 2, the billing is set based on the quality of the delivered monitored data stream at the subscriber serving apparatus. Khan does not teach or suggest such a system.

With respect to the rejection of claims 5 and 9 citing Sako, it is respectfully submitted that the billing table described therein is different from the instantly claimed table. In Sako billing is carried out based on a value standard for the provided information (see para. [0006]). The value standard is described as a high or low value for using information which is

distinguished by quality and class. (see para. [0021]). Thus, the billing rate is previously determined based on the level of compression, for example, and are irrelevant to the quality of the **delivered monitored data stream**. In contrast, the amount of billing in claims 5 and 9 is determined based on the quality of the monitored data stream and the billing parameter being associated with the delivery quality of the monitored data as shown in Figs. 7 and 9.

### **The Advisory Action**

The Advisory Action made three allegations that were not part of the Final Office Action. These allegations are responded to here. Initially, the Advisory Action alleged that the features upon which reliance is placed to distinguish over the cited references are not found in the claims. Namely, advisory action alleges that applicants have relied upon “a monitoring device setting the billing rate” to distinguish over the Khan. This is incorrect. Rather, it has been argued, and the claims as amended recite a “billing server [that] includes judging means for judging the amount of billing to be charged to a user based on delivery quality of the monitored data stream at the subscriber serving apparatus.” Thus it is submitted that the first argument raised by the Advisory Action is in error.

Next, with respect to paragraph (2) of the Advisory Action, it is submitted, contrary to the assertion by the Examiner, that claim 12 of Khan does not include a determination of a price using quality of delivery as a factor. Claim 12 of Khan teaches the determination of price **prior** to transmission, thus the quality of **delivery** cannot possibly be one of the factors in determining the price, as recited in the current claims where it is stated that “the billing is set based on the quality of the **delivered monitored data stream**.” Simply put, quality of delivered data cannot be determined prior to the actual sending of the data. Accordingly, claim 12 of Khan does not

teach determination of price based on the quality of delivery service. Therefore the second argument raised by the Advisory Action is in error.

Finally, with respect to Sako, while level of compression may well be a form of quality, there is nothing in the reference that describes quality of the **delivered monitored data stream**. Compression as described in Sako is a parameter set in advance of transmission and not part of the quality of the delivered monitored data stream. Again, quality of delivered data cannot be determined prior to the actual sending of the data. Therefore the third argument raised by the Advisory Action is in error.

Based on the foregoing, it is submitted that independent claims 1 and 2 patentably distinguish over the relied upon portions of Kei and Khan and are allowable. Further it is submitted that the relied upon portions of Sako do not address these shortcomings. Accordingly, claims 1 and 2 patentably distinguish over the relied upon portions of the cited references and are allowable. Claims 3-10, which depend from one of these allowable base claims, are allowable therewith.

**CONCLUSION**

Claims 1-4, 6-8 and 10 are patentable over Kei in view Khan, and claims 5 and 9 are patentable over Kei in view of Khan and in further view of Sako. Accordingly, it is respectfully submitted that the Examiner erred in rejecting claims 1-10 and a reversal of such rejections by this Board is solicited.

Respectfully submitted,

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### **VIII. Claims Appendix**

1. A content delivery system for delivering content over a network, comprising:
  - a subscriber serving apparatus serving at least one user terminal;
  - a delivery server for delivering content; and
  - a billing server for billing for the delivery of the content, wherein  
the subscriber serving apparatus includes monitoring means for monitoring a data stream  
being delivered from the delivery server to the user terminal, and  
the billing server includes judging means for judging the amount of billing to be charged  
to a user based on delivery quality of the monitored data stream at the subscriber serving  
apparatus, and bills the user based on the result of the judgment made by the judging means.
2. A content delivery system for delivering content over a network, comprising:
  - a subscriber serving apparatus serving at least one user terminal;
  - a delivery server for delivering content; and
  - a billing server for billing for the delivery of the content, wherein  
the subscriber serving apparatus includes monitoring means for monitoring a data stream  
being delivered from the delivery server to the user terminal, and judging means for judging the  
amount of billing to be charged to a user based on delivery quality of the monitored data stream  
at the subscriber serving apparatus, and  
the billing server bills the user based on the result of the judgment made by the judging  
means.
3. A content delivery system as claimed in claim 1, wherein

the delivery server includes means for identifying the subscriber serving apparatus serving the user terminal that originated a delivery request, and for sending information specifying the user terminal and the data stream to be monitored to the subscriber serving apparatus, and

the subscriber serving apparatus, based on the information received from the delivery server, identifies the user terminal and the data stream to be monitored by the monitoring means.

4. A content delivery system as claimed in claim 1, further comprising a management apparatus for accepting a delivery request from the user terminal, wherein

the management apparatus includes means for identifying the subscriber serving apparatus serving the user terminal that originated the delivery request, and for sending information specifying the user terminal and the data stream to be monitored to the subscriber serving apparatus, and

the subscriber serving apparatus, based on the information received from the management apparatus, identifies the user terminal and the data stream to be monitored by the monitoring means.

5. A content delivery system as claimed in claim 1, wherein the judging means includes a billing judgment table for setting a billing parameter, and determines the amount of billing to be charged to the user through the user terminal, based on the result of the judgment of the delivery quality of the monitored data stream and the billing parameter associated therewith.

6. A content delivery system as claimed in claim 1, wherein the judging means judges whether to bill or not bill the user based on the delivery quality of the monitored data stream at the subscriber serving apparatus.

7. A content delivery system as claimed in claim 2, wherein the delivery server includes means for identifying the subscriber serving apparatus serving the user terminal that originated a delivery request, and for sending information specifying the user terminal and the data stream to be monitored to the subscriber serving apparatus, and the subscriber serving apparatus, based on the information received from the delivery server, identifies the user terminal and the data stream to be monitored by the monitoring means.

8. A content delivery system as claimed in claim 2, further comprising a management apparatus for accepting a delivery request from the user terminal, wherein the management apparatus includes means for identifying the subscriber serving apparatus serving the user terminal that originated the delivery request, and for sending information specifying the user terminal and the data stream to be monitored to the subscriber serving apparatus, and the subscriber serving apparatus, based on the information received from the management apparatus, identifies the user terminal and the data stream to be monitored by the monitoring means.

9. A content delivery system as claimed in claim 2, wherein the judging means includes a billing judgment table for setting a billing parameter, and determines the amount of billing to be

charged to the through the user terminal, based on the result of the judgment of the delivery quality of the monitored data stream and the billing parameter associated therewith.

10. A content delivery system as claimed in claim 2, wherein the judging means judges whether to bill or not bill the user based on the delivery quality of the monitored data stream at the subscriber serving apparatus.

**IX. Evidence Appendix**

None.

**X. Related Proceedings Appendix**

None.